Erysipelas. In a case with very extensive lesions originating at the site of drainage wounds and extending over almost the entire body, I was never able to find diazo. Clemens reports five positive cases in one hundred and twenty-two. Coste found the reaction in two-thirds of his cases.

The results of my observations have been to confirm in most particulars the statements of Ehrlich. They also agree with results published from this laboratory in 1893 by Dr. Warthin. The fact that during the past eight years the test has been made in the same way in the clinical laboratory makes our results most trustworthy.

In deciding upon the clinical value of the Ehrlich diazo reaction we can fairly discard the work of all investigators who have not performed the test in accordance with the directions laid down by Ehrlich, or who have not considered the pink foam as the important factor in the test. In this list are included the names of Penzoldt, Petri, von Jaksch, Munson and Oertel, and Edwards. The statistics presented by numerous investigators who have performed the test correctly are overwhelmingly convincing as to the value of this reaction in the diagnosis and prognosis of typhoid fever, and the prognosis of disease such as pneumonia, diphtheria, septicæmia, and especially tuberculosis.

A CASE OF TRICUSPID AND MITRAL STENOSIS WITH ADHERENT PERICARDIUM.

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Uncomplicated tricuspid stenosis is rare; it usually occurs in combination with lesions of one or more of the other cardiac orifices, most commonly the mitral. In 114 cases collected and analyzed by Leudet, simple tricuspid stenosis was present in 11; and it was met with in 1 of the 14 new cases described by Ashton and Stewart in their résumé. In point of frequency, after combined tricuspid and mitral stenosis, comes the association of tricuspid, mitral, and aortic stenosis. Articular rheumatism is the most common clinical antecedent in this class of cases, and considering the frequency with which this disease is accompanied by both endocardial and pericardial inflammation, it seems strange that the association of an obliterative pericarditis with the valvular changes does not appear more frequently than the available records show. In 86 cases of tricuspid stenosis briefly noted by Steele, the pericardium was recorded as adherent in 7; and in the 12 original examples with autopsy, making the basis for his work on *Adherent*

Pericardium, Broadbent found tricuspid stenosis but once. Besides these more exhaustive summaries, isolated cases of simple or combined tricuspid stenosis have been since contributed by Dock, Kassem-Beck, Steele, McCarty, Packard and others. In one of his two cases Kassem-Beck found adherent pericardium.

The case now to be described in its main points as to sex, rheumatic history, and limitation of the lesion to the auriculo-ventricular orifices conforms to the more general rule, but the addition of the ancient obliterative pericarditis serves to give it a certain distinction among a class of cases of comparatively infrequent description, especially where the clinical observations are supplemented by deliberate post-mortem examination.

Clinical History. S. A., female, white, native of Ohio, was admitted to the Ohio Hospital for Epileptics, August 20, 1894, when thirty-six years of age. At that time the following facts were recorded: The father is dead; there are several brothers, of whom one is said to be an epileptic. Previous to the first epileptic seizure this patient had typhoid fever and inflammatory rheumatism of the lower extremities, and to the latter affection she ascribes the onset of her epilepsy. Since the first attack, five years ago, in the thirty-first year of her age, the epileptic paroxysms have occurred at irregular intervals, averaging about one a month, and from her description seem to have been severe.

As to the epilepsy, it may be well to here add that the patient's attacks, as witnessed since her admission to the hospital, resemble those of idiopathic *grand mal;* though the late onset of the disease, and the unsatisfactory details regarding the seizures, together with the post-mortem findings of chronic heart disease, tend to raise a doubt as to the nature of the epilepsy, which possibly belongs to the type of convulsions known as "cardiac epilepsy" rather than those of idiopathic *grand mal.*

The patient was a large woman, five feet seven inches in height, weighing one hundred and fifty-two and one-half pounds, and in an excellent state of nutrition. At this entrance-examination the lungs were negative; respirations 28; liver dulness normal; heart dulness enlarged to the left, with a blowing murmur at the apex.

During the five years of residence at this hospital the patient was never sick in bed, and attended to such work as her simple mental condition allowed. She had occasional attacks of incompensation, at which times she had œdema and complained of shortness of breath, but usually recovered in a few days.

On April 15, 1899, she took to bed with the fatal illness. I saw her twice during this period with Dr. W. G. List, in whose service she was. The following notes were made: The patient lies propped up in bed, dyspnœic, moderately cyanotic, with cough and bloody expectoration and marked tense œdema of the feet and slight puffiness of the face. The skin is generally sallow, there is a thick panniculus. A slight enlargement of the thyroid gland can be detected. The chest is large and well formed. The apex-beat is not to be seen or felt; there is well-marked heart shock, but no thrill can be felt. The dulness is somewhat enlarged to the left; the lower sternum is quite dull, and the dulness extends high up along the left border of the sternum. On auscultation in the apex region the first sound is extremely loud and sharp. There is a loud, harsh murmur, beginning with the first sound, suddenly becoming quite soft and of different character, and fading away some time before the loud first sound again recurs. The second sound is not heard at the apex. Both sounds are heard at the base, the first pulmonary is louder than the second, and is accompanied by a blowing murmur. The pulse is full, but soft and quite regular. There is moderate dulness with small moist râles and blowing breathing low down in the back. The abdomen is level with the ribs; there are no signs of fluid in it, and neither the spleen nor the liver can be felt, although there is tenderness in the region of the latter organ.

The urine is brownish; specific gravity 1040, and it solidifies upon the addition of nitric acid after boiling. The sediment is copious and made up of large and small casts of all descriptions—hyaline, hyaline with granules; many bearing leucocytes and epithelial cells and occasionally red-blood cells; there are also free leucocytes, epithelial and blood cells in the urine.

The probability of there being a double mitral lesion was entertained from the first, but the true state of the case was not discovered till the post-mortem examination, as the following data, taken in most part from Dr. Ohlmacher's notes, will show.

Pathological Résumé. The necropsy was held May 2, 1898, eight hours post-mortem. The body is that of a large, well-nourished woman, of middle age, 172 cm. long. There is pronounced rigor mortis. Slight œdema of ankles is evident. Frothy, blood-stained fluid is issuing from the nose and mouth. The mucous membranes of the mouth, nose, and eyes are purplish; the ears, too, are cyanotic. The pupils are dilated and equal. The face and neck are mottled and livid; and there is marked lividity on the back. There is a moderately thick fat layer.

The abdomen is somewhat distended, and contains about 100 c.cm. of clear fluid; the intestines and stomach are moderately inflated with gas. Both are negative except that in the lower ileum the patches of Peyer have the shaven-beard appearance.

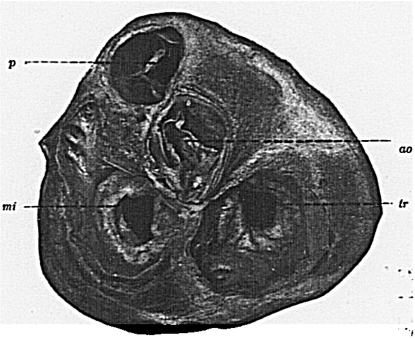
The liver adheres to the diaphragm; it weighs 1910 grammes. On section a moderate interstitial hepatitis is revealed; the lobules all standing out with undue prominence. Microscopically, the connective tissue is a good deal increased, mostly about the lobules, though occasional bands cut through them; the capillaries are congested, and there is atrophy of many of the hepatic cells, with occasional slight fatty degeneration.

The spleen weighs 360 grammes. It is quite firm, with its follicles plainly visible in the light purple pulp. Under the microscope a congestion of limited degree and a thickening of the trabeculæ are seen.

The kidneys together weigh 290 grammes, and present a roughened surface. The capsules adhere, and when pulled off leave a universally broken surface, with reddish depressions and raised yellowish foci. The cortex is narrowed about one-half and is mottled yellowish red. Histological sections show the general but irregularly disposed increase of connective tissue of secondary contracted kidney, together with congestion, and cloudy swelling of the parenchyma. The suprarenal bodies appear normal.

There is a bilateral almost complete obliterating pleuritis, with about 500 c.c. of clear fluid in each side. In both lungs the lower lobes are pneumonic, being flesh-like, solid, and sinking in water, with little fluid escaping on section; abundant frothy, blood-stained fluid issues from the cut surfaces of the upper lobes, and similar fluid flows from the mouth as the lungs are squeezed. There is moderate œdema of the glottis. There are calcareous foci in the upper lobe of the left lung. The right lung weighs 860 and the left 850 grammes. The bronchial glands are large, and some of them contain caseous foci. The thyroid is about one-third larger than the ordinary adult organ. A number of small cysts containing a gelatinous, dark-brown material are scattered throughout its substance, and along with this general cystic metamorphosis, which shows the histological characteristics of the colloid-cystic struma, each lobe contains a more dense, spherical, encapsulated nodule, about 1 cm. in diameter, also containing small cysts, and exhibiting the microscopical structure of a cystic adenoma. The thymus is represented by a bilobed thymic fat body which has apparently undergone complete fatty metamorphosis.

FIG. 1

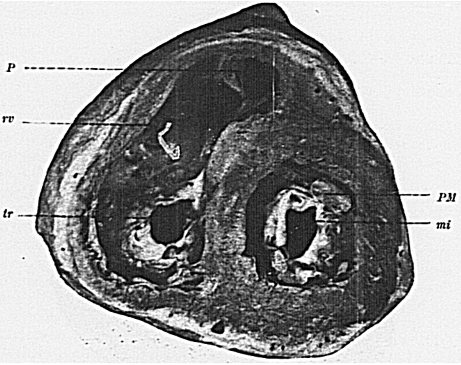


A cross-section of the hardened heart just above the valvular plane, showing the four valvular orifices from the cephalic aspect. The thin and free segments of the aortic (*ao*) and of the pulmonary (*p*) valves and of the coalesced tricuspid (*tr*) and mitral (*mi*) are evident. An inadvertent incision has slightly disturbed the relations of the aortic segments.

There is complete obliterating chronic pericarditis without, however, much pericardial thickening. The heart, which is extremely flabby, weighs with its adherent pericardium 500 grammes. There are a few minute atheromatous spots in the aorta. The coronary arteries are slightly atheromatous, but, so far as examined, not obliterated. In the examination of the whole fresh organ it was discovered by palpation that both the mitral and tricuspid orifices were so narrow as to admit only the tip of the index finger, the edges being thickened, rigid, and almost cartilaginous in consistency; but the aortic valves, while somewhat thickened, were movable, and proved competent by the hydrostatic test, and the pulmonary valves were quite unaltered.

The heart was hardened whole in formalin without further dissection. The whole hardened heart, which has preserved its original shape remarkably well, measures 14 cm. in length, 9 to 10.5 cm. in width, and 30.5 cm. in circumference. On cutting, all the chambers were much distended, without much hypertrophy of the ventricular walls. The wall of the left ventricle varies in thickness from 14 to 17 mm., and that of the right from 5 to 8 mm. The pulmonary valves are not thickened. The aortic valves are slightly thickened. There is well-marked stenosis of both the mitral and tricuspid valves, that of the mitral being a little more pronounced. Both project as rigid cones into the ventricles. The mitral opening is irregularly triangular in shape, 17 mm. in its greatest length and 13 in its greatest width. The tricuspid orifice is roughly pyriform, 16 x 10 mm. The appearance of the narrowed orifices, seen both from above and below, is shown in Figs. 1 and 2. The papillary muscle, on macroscopic section, shows the usual whitish, irregular scars of fibrous myocarditis. This is confirmed by the microscopical examination, which also discovers a marked degree of fragmentation of the muscle-fibres.

FIG. 2.



A trans-section of the same specimen immediately below the valvular plane, showing the stenotic orifices (lettered as in Fig. 1) and surrounding parts from the caudal aspect. The thickened, white, unbroken rings bounding the narrowed orifices make conical projections into the ventricular cavities. The pulmonary sinus is located at *P*, and the dome of the dilated right ventricle is marked by *r v*; *P M* shows the thickened left papillary muscle.